

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1 – 6 and 10 – 15, drawn to an audio digital watermark apparatus for recording watermark data on a voice recording medium.

Group II, claim(s) 7 – 9 and 16 – 18, drawn to an audio digital watermark decoding apparatus for decoding a watermark data recorded on an audio recording medium.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I is directed to encoding a watermark on a digital recording medium and Group II is directed to decoding a watermark on a digital recording medium.

3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Group I:

Species I: Figures 8 – 9 or Embodiment 2.

Species II: Figures 10 – 12 or Embodiment 3.

Species III: Figures 13 – 17 or Embodiment 4.

Species IV: Figures 18 – 20 or embodiment 5.

Species VI: Figure 21 – 22 or Embodiment 6.

Group II:

Species VII: Figures 26 – 28 or Embodiment 8.

Species VIII: Figures 29 – 31 or Embodiment 9.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

4. The claims are deemed to correspond to the species listed above in the following manner:

Group I:

Species I: Claims 1, 10, 2, and 11.

Species II: Claims 1, 10, 3, and 12.

Species III: Claims 1, 10, 4, and 13.

Species IV: Claims 1, 10, 5, and 14.

Species V: Claims 1, 10, 6, and 15.

Group II:

Species VI: Claims 7, 16, 8, and 17.

Species VII: Claims 7, 16, 9, and 18.

Art Unit: 2614

The following claim(s) are generic: Currently claims 1 and 10 of Group I and claims 7 and 16 of Group II.

5. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons:

Group I:

Species I relates to an audio digital watermark apparatus wherein said data generation unit for generating data for a watermark generates the data for a watermark of inaudible low frequency.

Species II relates to an audio digital watermark apparatus wherein said data generation unit for generating data for a watermark generates the data for a watermark, in which the value and the slope of the boundary for changing the amplitude of a function of the data for generating a watermark, which is generated by the data generation unit for generating data for a watermark; are always zero.

Species III relates to an audio digital watermark apparatus wherein said data generation unit for generating data for a watermark changes the amplitude of a function represented by said data for generating a watermark with respect to each half-cycle so that said result of the predetermined summation per said predetermined cycle represents the watermark data acquired by said watermark data acquisition unit.

Species IV relates to an audio digital watermark apparatus wherein said result of the predetermined summation per said predetermined cycle is a sign for the summation of said multiplexed audio data per half-cycle of said data for generating a watermark.

Species V relates to an audio digital watermark apparatus wherein said result of the predetermined summation per said predetermined cycle is a sign representing the difference of the summation of said multiplexed audio data corresponding to the first half of the cycle and that of the latter half of said data for generating a watermark.

Group II:

Species VI relates to an audio digital watermark decoding apparatus wherein said summation computation unit computes a sign for summation of said multiplexed audio data over a period of a half-cycle of said data for generating a watermark, in which said multiplexed audio data is acquired by the multiplexed audio data acquisition unit.

Species VII relates to an audio digital watermark decoding apparatus wherein said summation computation unit computes a sign of the difference between the summation of said multiplexed audio data over a period of a half-cycle, the first half of one cycle,

and a summation of said multiplexed audio data over a period of a half-cycle, the latter half thereof, in which said multiplexed audio data is acquired by said multiplexed audio data acquisition unit.

6. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Saunders whose telephone number is (571) 270-1063. The examiner can normally be reached on Monday - Thursday, 9:00 a.m. - 4:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./  
Examiner, Art Unit 2614

/CURTIS KUNTZ/

Supervisory Patent Examiner, Art Unit 2614